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OFFICE OF

## FEDERAL COMMUNICATIONS COMMISSION WASHINGTON

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IN REPLY REPERFERENCE THE SECRETARY
7310-15/1700A

Honorable John Bryant Youse of Representatives 208 Cannon House Office Building Washington, D.C. 20515-4305

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Dear Congressman Bryant:

This is in response to your letter dated August 12, 1993 regarding PR Docket 93-61, adopted March 11, 1993. This proceeding involves regulations for Automatic Vehicle Monitoring (AVM) systems. In your letter, you express some concern that some AVM users in the 902-928 MHz band will be adversely affected and that, at the expense of future innovation, the spectrum will be assigned on an exclusive basis.

As you note, AVM systems are currently licensed on a shared basis in the 902-928 MHz band under interim rules adopted in 1974. Under these rules, AVM systems are only licensed on a permanent basis in two subbands, 904-912 MHz and 918-926 MHz. In PR Docket 93-61 we proposed to license AVM systems on a non-exclusive basis throughout the 902-928 MHz band. Because, however, some commenters, as well as research by the staff, has indicated that various types of AVM systems may have difficulty co-existing, we proposed to divide the 902-928 MHz band into five sub-bands, the 904-912 and 918-926 MHz bands and the 902-904, 912-918, and 926-928 MHz bands and to divide AVM systems into two categories, wide-band systems, which require a bandwidth of from two to eight MHz, and narrow-band systems, which require a bandwidth of less than two megahertz. Under our proposal wide-band systems would be licensed on a nonexclusive basis in the 904-912 and 918-926 MHz bands and narrow-band systems would be licensed on a non-exclusive basis in the remaining three sub-bands. We also proposed an alternative approach providing exclusive licensing of wide-band systems for five-years, after which we would begin licensing on a non-exclusive basis.

You express concern that the Commission is considering granting exclusive use of spectrum to entities that currently must operate in a shared environment. As stated previously, our proposal is to license AVM systems in this band on a non-exclusive basis unless it proves to be technically infeasible to do so. Although AVM systems have been licensed on a shared basis in the past, there have been no instances to date where two constructed wide-band AVM systems have shared spectrum in the same market. Accordingly, there is no conclusive evidence that complete sharing of the 902-928 MHz band by AVM systems is feasible. Furthermore, during the course of this rule making proceeding we are continuing to grant AVM licenses to all qualified applicants on a non-exclusive basis, just as we have done in the past. If it does prove infeasible for AVM systems to share spectrum, however, we intend to comply fully with the recently enacted legislation requiring use of auctions in situations where mutually exclusive applications are filed.

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We also note that any exclusivity granted to AVM systems would only be with regard to other AVM systems. AVM licensees would still have to share the 902-928 MHz band with a number of different services utilizing the band. The 902-928 MHz band is primarily allocated for use by the Federal Government for Radiolocation, Fixed and Mobile services. Federal Government users must, however, accept interference from Industrial, Scientific, and Medical (ISM) devices. Following both the Federal Government and ISM devices on the priority scale are Automatic Vehicle Monitoring (AVM) systems. Next are Amateur Radio operators and, finally, Part 15 users that are eligible to operate in this band. As you can see, AVM operators are not the primary users of the 902-928 MHz band, and we are not proposing to make them so.

Although we believe that our proposed division of the 902-928 MHz band between wide-band and narrow-band AVM systems and licensing AVM systems on a shared basis provides an equitable distribution of users and services, we fully realize the complicated nature of this proceeding and its far reaching consequences on Intelligent Vehicle Highway Systems and the transportation industry in general. No final decisions have been reached in this proceeding and we are carefully considering the opinions expressed by all commenters, including those filed by your constituent's company, Pinpoint Communications, before making final decisions on our proposals. While we do intend to conclude this proceeding in a timely manner, we do not intend to artificially hasten the rule making process. Finally, myself and my fellow Commissioners share your interest in creating an environment in which small businesses can contribute and compete and, to the point that it does not impair development of the AVM industry, we will make every attempt to provide opportunities for small businesses.

I thank you for your interest in this matter. I trust this is responsive to your concerns.

Sincerely,

James H. Quello

Chairman

### Congress of the United States House of Representatives Washington, V.C. 20515-4305

JOHN BRYANT 5TH DISTRICT, TEXAS

August 12, 1993

COMMITTEE ON ENERGY AND COMMERCE COMMITTEE ON THE JUDICIARY COMMITTEE ON THE BUDGET

Honorable James H. Quello, Chairman Federal Communications Commission 1919 M Street, N. W. Washington, D. C. 20554

Dear Mr. Chairman:

I have been contacted by Mr. Philippe Villers, Director of Pinpoint Communications, Inc. in Richardson, Texas to express his concern with the Commission's rulemaking on automatic vehicle monitoring (PR Docket 93-61) which he believes could adversely affect important public services and the ability of a number of large and small manufacturers in Texas and other states to fairly compete.

I am pleased that the Federal Communications Commission has decided to look at the regulatory structure governing Automated Vehicle Monitoring (AVM) use of the 902 - 928 MHz band. My understanding is that the present interim rules were designed to foster innovation so that a variety of technologies could be developed. I would urge that the same regulatory philosophy be implemented in any new regulatory program.

Both local area AVM and wide area AVM can help in the development of Intelligent Vehicles Highway Systems, which the Congress mandated in the Intelligent Vehicle Highway Systems Act of 1991, as well as to meet other transportation and communications needs.

In working to foster continued innovation in AVM, I would urge the Commission not to accord exclusivity for large blocks of spectrum to any operators which have heretofore operated in shared environment. While there may well be a case to be made for exclusivity in some communications services, I trust that the Commission will bear in mind that both the House and the Senate have passed bills that would mandate the use of auctions to select from among those applicants who seek mutual exclusivity.

Similarly, the same legislation calls upon the federal government to make spectrum available for new services that would be subject to auctions. If there are AVM systems that require exclusive access because they are unable to function in a shared environment, the auction process would afford a means whereby they may gain it in bands other than the 902 - 928 MHz band. The public purse and the public's interests in meeting a host of needs call for continued sharing of this spectrum to encourage the development of more efficient and robust systems, and maintain the widely used services using this shared band.

As you and your fellow Commissioners consider this matter, I also trust that you will remain mindful of the need to create an environment in which small business can contribute to innovation. By establishing rules to allow both wide area and local area systems access to the 902 - 928 MHz band on a shared basis, you will avoid a situation in which some of the most innovative, but still small, companies, -- such as Pinpoint Communications of Richardson, Texas -- will be foreclosed.

Finally, you have no doubt noted the expression of Congressional interest in moving promptly to resolve the issues in the proceeding, preferably in the next six months. I share this interest in expedition, but I trust that the Commission will not let its desire to meet such a target interfere with careful scrutiny of this matter to ensure that the public interest is adequately protected.

I have enclosed Mr. Viller's correspondence for your review and look forward to working with you on this and other issues pending before the FCC.

Sincerely,

JOHN BRYANT

Member of Congress

Enclosures



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July 30, 1993

Congressman John Bryant
United States House of Representatives
Rayburn Building
Washington, DC 20515
ATTN: Barbara Crapa

VIA FAX - 202/225-9721

#### Dear John:

It has been a pleasure getting to know you and working with you on human rights issues through the DeBurght Conference. This time, however, I would appreciate your help on a non-human rights issue which could unfairly penalize a young Richardson, Texas company of which I am a director. Following up on my phone conversation with Barbara Crapa, I'd like to call your attention, as per the enclosed, to an attempt by two Baby Bell companies (Pactel and Ameritech) to obtain exclusive use of a radio frequency allocation (902 - 928 MHz) which has long been used on a shared basis by many users, including those for automatic vehicle location. It is their attempt to solve a technical problem of interference in their technically inferior products ("Teletrac" and "Mets") for automatic vehicle location through elimination of the sources of interference which make their systems difficult to operate. Newer technologies, including those now successfully demonstrated to the FCC by Pinpoint Communications of Richardson, Texas, solve that problem by a more robust system using the modern spread-spectrum technology originally developed by the military.

Were Pactel and Ameritech successful (using grandfather clauses) in getting exclusive use of the spectrum, they would drive out of business better technology now developed by small businesses including Pinpoint and the public would suffer by not having a superior technology available. In addition, many other users would be hurt.

I understand that your committee has been an exponent of an auction system for available radio bands so the federal government can derive revenue from these scarce resources. Pactel and Ameritech's proposed rule change is a way to get free exclusive use of very valuable bandwidth while preventing other important public uses involved with the move to smart highways and smart vehicles, including toll tags, etc. The proposed spectrum grab is not just injurious to companies like Pinpoint but is terrible public policy.

Among other Texas companies which would be adversely affected by the proposed spectrum grab is Texas Instruments in connection with its TIRIS<sup>TM</sup> system (TI Registration and Identification System) as well as a number of toll highway authorities such as the Texas Turnpike Authority (which uses toll tags in Dallas). All of these have formally filed objections to the Telectrac rule making proposal with the FCC.

Enclosed are a write-up prepared by Pinpoint's patent counsel which summarizes the issue; a draft letter which you may wish to consider using; and the relevant language included in the report of the Senate Committee on Appropriations dated July 22nd in which they also recognize the problem we are talking about. Thank you for looking into this matter. I'd appreciate hearing of any action you may take and whether the draft letter or a variant of it seems appropriate to you.

Sincerely yours,

Philippe Villers

Director

Pinpoint Communications Inc.

Richardson. Texas

&

President

Families USA Foundation

97 Lowell Road

Concord, MA 01742

508/371-7400, FAX: 508/371-7411

Enclosures: Write-up by Washington DC Patent Counsel

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Draft letter

Reference in Senate Committee on Appropriations Report

cc: Charles Taylor, Pinpoint Communications Inc.

Steven P. Reynolds, Legal Counsel, Texas Instruments Inc.

Dave Hilliard, Wiley, Rein & Fielding

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# FCC Rulemaking on Automatic Vehicle Monitoring The Last Great Spectrum Rush Before Auctions

The Federal Communications Commission is conducting a rulemaking in PR Docket 93-61 to adopt standards governing use of the 902 - 928 MHz band for automatic vehicle monitoring (AVM). AVM systems now in operation and those announced to date may be characterized as local area or wide area. Local area systems are used to determine with great precision the identity of a vehicle in a given location such as a lane at a toll both or the identity of a rail car as it passes a specified point. As such, local area systems are in use today by a variety of public and private entities to automate toll collection and to track most North American rail cars. Wide area systems can provide the location and identity of vehicles moving throughout large geographic areas of many square miles. Such systems have a range of 5 to 10 miles and afford accuracy within 100 to 200 feet. Wide area systems are useful in computer assisted dispatching of commercial and public vehicles, the recovery of stolen vehicles, and the provision of assistance to stranded motorists.

#### Two Types of Systems to Meet IVHS Needs - One Band of Spectrum

Both types of systems can play an important role in the progress of the Intelligent Vehicle Highway System (IVHS), a development mandated by Congress in the Intelligent Vehicle Highway Act of 1991. By using communications and information technology, transportation planners will be able to gain more efficient use of the existing highway infrastructure. Thus, IVHS holds the promise of using electronics to leverage the capacity of our existing highways so as to reduce commute times, decrease fuel consumption and lower air pollution.

The FCC proposals, however, set the stage for a decision that could fall very short of meeting important public needs for IVHS and other AVM services. Under the FCC's proposal, the 902 - 928 MHz band would continue to be the spectrum home for most AVM systems. Since 1974, AVM has shared this band with a variety of other users. Currently, the top priority in the band is for Industrial, Scientific and Medical (ISM) uses of spectrum that do not involve communications. These include industrial microwave ovens and therapeutic devices. ISM use of the band is generally perceived as being rather light. The next priority is held by the federal government for use in radiolocation systems (currently certain types of radar). The third priority is for AVM. Amateurs ("hams") hold the fourth priority. A plethora of unlicensed devices operating under Part 15 of the FCC rules comprise the fifth level of priority. These include a new generation of cordless telephones and various anti-shoplifting devices as well as wireless local area networks for use with computers.

### Exclusion of New Technologies - Exclusivity Leading to Duopoly

Unfortunately, one of the alternatives under consideration by the FCC would give what amounts to exclusive spectrum to those wide area systems such as PacTel Teletrac that cannot share spectrum with either local or wide area systems. Such a scheme would not provide sufficient spectrum for high capacity wide area systems such as that developed by Pinpoint that can share spectrum with local area systems including those used to collect tolls and track rail cars. Under the FCC's proposal, local area and wide area systems would be segregated to different parts of the band - a proposal that also has been criticized by local area systems as affording too little spectrum for their needs. Thus, this FCC proposal would create a virtual nationwide duopoly for the benefit of PacTel Telecrac, a joint venture controlled by the regional Bell operating company Pacific Telesis, and for another company known as METS, Inc. Under this alternative, PacTel and METS would gain exclusivity to 8 MHz apiece for a period of 5 years. After that time, any new systems would have to protect the existing systems from interference. Thus, 16 MHz of the band would effectively be taken away. PacTel and METS have each obtained licenses in more than the top 50 markets virtually a nationwide duopoly if accorded exclusivity. The FCC accorded each of these a five year implementation schedule and now proposes to extend that for another five years. Several years after the issuance of these licenses, however, PacTel is operational in only six cities and METS has not constructed any commercial system. According to filings made by both companies at the FCC, neither possesses a technology that is robust enough to share the spectrum with other systems. This lack of robustness has been cited as the reason why they need to obtain exclusivity.

### A Way to Dodge Auctions for Exclusive Spectrum in Other Bands

The move toward exclusivity in the 902 - 928 MHz band comes on the eve of legislation that would (1) reallocate from federal to nonfederal use some 200 MHz of other spectrum and (2) require the FCC to auction spectrum in mutually exclusive situations. If the FCC accords de facto exclusivity to two existing, but largely unbuilt, systems in the 902 - 928 MHz band, it would wipe out opportunities for other users who can share spectrum. Such a move by the FCC would also accord exclusivity for free at a time when Congress has directed the FCC to auction other spectrum to those who need exclusivity.

### Make Sharing Work - Foster Competition - Meet Many Needs

If the proponents of fragile AVM technologies require exclusive spectrum, the Commission should require that they buy rights to it in bands other than 902 - 928 MHz. As a historically shared band, 902 - 928 MHz should remain available to both wide area and local area AVM systems that are able to function efficiently and to share spectrum. In this manner, both types of systems could be better supported. The public would benefit from greater competition, and IVHS needs could be well served as FCC licensees would benefit from a greater measure of flexibility in the establishment of systems.